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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/461,416 12/16/99 DE BLOCK

M 2121-154P

002292
BIRCH STEWART KOLASCH & BIRCH

HM22/1002

PO BOX 747
FALLS CHURCH VA 22040-0747

EXAMINER

BAKER, W

ART UNIT

PAPER NUMBER

1661

DATE MAILED: 10/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/461,416

Applicant(s)

DeBlock et al.

Examiner
Wendy Couchoud Baker

Art Unit
1661



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 16, 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-36 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/817,188.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

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DETAILED ACTION

Status of Application

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1661.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 24-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dodds et al. in view of Strack et al., Muller et al., Berglund et al., Harding et al., Moldau, Uotila et al., Chen et al., or Masojidek et al..

Dodds et al. teach a method for assessing the viability of a plant cell by measuring the electron flow in the mitochondrial electron transport chain through measuring the plant cell's capacity to reduce 2, 3, 5-triphenyltetrazolium chloride. Dodds et al. do not teach subjecting the plant cells to a stress condition, comparing their viability to that of a control, measuring the plant cell's capacity to reduce 3-(4, 5-dimethylthiazol-2-yl)-2,3 diphenyl-2H-tetrazolium, specific stress conditions or concentrations of stressors, a variety of specific explants, or use of transgenic plant

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material. Strack et al. teach subjecting plants to salt stress. Muller et al. teach subjecting plants to osmotic stress. Berglund et al. teach stressing plants by subjecting them to high irradiation with UV light and by incubation with a PARP inhibitor. Harding et al. teach stressing plants with high heat and measuring photosynthetic electron transport. Moldau teaches stressing plants with sublethal dose of air pollution chemicals. Uotila et al. teach stressing plants with sublethal doses of herbicides. Chen et al teach stressing plants with sublethal doses of heavy metals. Masojidek et al. teach stressing plants by irradiation with UV light.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Dodds et al., modifying same by obvious parameter optimizations known in the art, such as measurement of the capacity of the plant or explant to reduce other chemicals known to measure the electron flow in the mitochondrial electron transport chain to assess the agronomical fitness of plants by experimentally determining their ability to resist damage from stresses known in the art as compared to a control. Specific stressors such as specific salts, osmotic agents or PARP inhibitors known in the art and specific concentrations of same are other obvious parameter optimizations applicants might choose to explore. Applicants would reasonably be expected to use the method for any plant part or species of interest, including transgenic plants.

While it is not clear that the references encompass all of applicants' claimed methods or stressors, the variables set forth constitute a routine optimization of experimental conditions that

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would be practiced by one of ordinary skill in the art, and therefore minor adjustments in the claim limitations fail to suggest a patentably distinct invention from the references cited.

The skilled artisan would have been motivated to optimize experimental conditions to assess the fitness of any particular species of interest, in response to any particular stressor of interest. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

No claims are allowed.

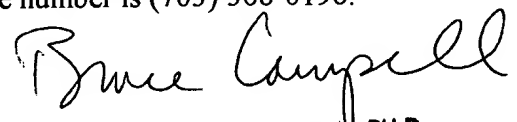
Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wendy C. Baker whose telephone number is (703) 308-8898. The Examiner's current work schedule is available at the above telephone number.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bruce Campell, can be reached on (703) 308-4205. The fax number for the group is (703) 305-3041 or (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the Matrix Customer Service Center whose telephone number is (703) 308-0196.

W. C. Baker



BRUCE R. CAMPELL, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600